

CLAIMS

1. Device (1) for the analysis or absorption measurement of a small quantity, for example, of a drop, of a liquid medium (2) using light (3), which is guided through the medium (2) and then can be detected or analyzed photometrically, spectrophotometrically, fluorometrically, or spectrofluorometrically, wherein the device (1) has a receiving point (4) area at a top thereof in a position of use for depositing or applying the medium (2) in drops, a light inlet (5) oriented horizontally in the position of use and located 5 underneath the receiving point (4) in its housing (6), and a first device (7) located behind the light inlet (5) providing a beam path for guiding the light upwards towards the receiving point (4), characterized in that the device (1) has a reflector (8), which can be attached detachably above the receiving point (4); that the reflector (8) has a defined spacing from the receiving point 10 (4) in a position of use, which is filled or can be filled by the medium (2) at least in an area of the light passage; and that a second device (9) is provided for guiding the light coming from the reflector (8) towards a detector.
2. Device according to Claim 1, characterized in that the receiving point (4) can be accessed as a surface area from above and the medium (2) to be analyzed can be fixed or held by a force of gravity at the receiving point (4). 20
3. Device according to Claim 1 or 2, characterized in that the receiving point (4) has dimensions so large that the light (3) moving through the receiving point 25 towards the reflector (8) and reflected back from the reflector is guided at least once, especially twice, through the receiving point (4) and/or through the medium (2).

4. Device according to one of Claims 1 to 3, characterized in that a light guide or light-guiding fiber bundle (10) is arranged for guiding the light towards the receiving point (4) from the first device (7) and a light guide or a fiber bundle (11) guiding the light for guiding the light coming from the reflector (8) and the sample is arranged, in particular, between the receiving point (4) and the second device (9).
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5. Device according to one of Claims 1 to 4, characterized in that optics (12), at least one convergent lens, which bundles the light and which is coupled optically with the light guide(s) (10, 11), is provided underneath the receiving point (4) for the medium (2).
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6. Device according to one of Claims 1 to 5, characterized in that the receiving point (4) is an area recess on the top side of the device (1) underneath the reflector (8) and is formed, in particular, by a boundary of the optics or lens (12) facing the receiving point or by the light guides (10, 11) ending at the receiving point position, wherein the lens or optics (12) and/or the ends of the light guides (10, 11) are set back relative to a top side (13) of the holder for the lens or optics (12) or the light guides.
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7. Device according to one of Claims 1 to 6, characterized in that the lens or optics (12) coupled with the light guides (10, 11) are simultaneously formed as a closing window of the device (1), on which the sample of the medium (2) to be analyzed can be applied in drops.
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8. Device according to one of Claims 1 to 7, characterized in that the reflector (8) is a mirror or a reflecting prism and touches the sample of the medium (2) without spacing in the position of use.
- 5 9. Device according to one of Claims 1 to 8, characterized in that the measurement distance through the sample is twice as large as a spacing of the receiving surface (4) from a surface of the reflector (8) and the light travels twice through the spacing.
- 10 10. Device according to one of Claims 1 to 9, characterized in that the reflector (8), which can be set or attached detachably, is locked in rotation and centered relative to the device (1) and the housing (6).
- 15 11. Device according to one of Claims 1 to 10, characterized in that the spacing of the reflector (8) from the receiving point (4) is set by at least one spacer (16) between the reflector (8) and the housing (6) or a stop.
- 20 12. Device according to one of the preceding claims, characterized in that the device (1) has outer dimensions of a cell, which can be used in a photometer, spectrophotometer, fluorometer, or spectrofluorometer and which is struck by light therefrom, and that the devices (7, 9) arranged in the interior of the device (1) for feeding or guiding light are arranged at the point of the device (1), at which inlet and outlet windows for the light (3) used for the measurement are provided in typical cells, wherein the first device (7) for guiding light directs the light emitted by the photometer or the like towards the receiving surface (4) and the second device (9) for guiding

light directs the light coming back from the measurement point towards the detector.

13. Device according to one of Claims 1 to 12, characterized in that the
5 device is comprised of glass or plastic and has, in the area of the light inlet
(5), as a first guiding device (7), a tilted prism or a tilted mirror facing a
shaft (18) or channel at a right angle to the light inlet for a light guide (10)
and parallel to the guide another light guide (11) with a second tilted prism
or tilted mirror, which is arranged at the opening and which lies opposite an
10 outlet window for the light or forms this window.

14. Device according to one of Claims 1 to 13, characterized in that the outer
dimensions of a cross section of the device (1) corresponds to those of a
standard cell and equal, in particular, 12.5 mm x 12.5 mm.

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15. Device according to one of Claims 1 to 14, characterized in that the
outgoing light beam is aligned with the incoming light beam or encloses a
right angle with the incoming beam.